

REMARKS

This paper is filed responsive to the Final Office Action mailed November 26, 2010. Claims 1, 4-24 are pending in the application. Claims 2, 3 and 25-50 have been canceled. Claims 1, 13, 16, 21 and 22 are amended. No new matter is added.

Claims 1, 4-7,9-11,13,19, 20, 23 and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,640,127 (Kosaka) in view of U.S. Patent Appln No. 2002/0198451 (Carson). Applicants traverse the rejection.

Claim 1 has been amended to more clearly define the claimed invention. In particular, Applicants amended claim 1 to add the final two steps of the method claim to more clearly illustrate how the claimed invention differs from the cited prior art. The subject matter of the amendments is supported at least by paragraphs 5, 68, 72, 73 and 114 of the published specification (U.S. Application Publication No. 2008/0287781).

Claim 1 claims a method for generating a registered image of a body part of a patient for use in a computer aided surgical procedure, the method including the steps of:

attaching a first marker detectable by a first tracking system to the body part prior to any surgical steps of the surgical procedure, the first tracking system having a first reference frame;

using an imaging system having a second marker attached thereto in a known positional relationship relative to the imaging plane of the imaging system to capture at least a first image of at least a portion of the body part using an imaging system;

during the capturing step, using the first tracking system to detect the position of the first marker and the second marker in the first reference frame;

obtaining an indication of the position of the first image relative to the first reference frame of the first tracking system using the detected position of the second marker and the known positional relationship between the second marker and the imaging plane;

determining a mapping to bring the first image into registration with the position of the body part in the first reference frame using the detected position of the first marker;

detecting the position of the first marker using a second tracking system in an operating theatre, the second tracking system having a second reference frame; and

using the mapping to register the first image with the detected position of the body part in the second reference frame.

Applicants submit that neither Kosaka nor Carson describe at least the steps of: determining a mapping to bring the first image into registration with the position of the body part in the first reference frame using the detected position of the first marker; detecting the position of the first marker using a second tracking system in an operating theatre, the second tracking system having a second reference frame; and using the mapping to register the first image with the detected position of the body part in the second reference frame. For example, neither Kosaka nor Carson describe determining a mapping to bring the first image into registration with the position of the body part in the **first reference frame of the first tracking system** using the detected position of the first marker, and then detecting the position of the first marker **using a second tracking system in an operating theatre**, the second tracking system having a second reference frame. And, neither describes mapping to register the first image with the detected position of the body part in the **second reference frame**. As a result, Applicants submit that the cited references both fail to describe the claimed steps, and therefore, even if the references are combined, they fail to describe the claimed steps and thus cannot render the claimed invention obvious.

Claims 14, 15, 16, 21 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka in view of Carson as applied to claim 10 above, and further in view of U.S. Patent Appln No. 2002/0188194 (Cosman). Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka in view of Carson as applied to claim 7 above, and further in view of U.S. Patent No. 6,942,667 (Song). Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka in view of Carson as applied to claim 1 above and further in view of U.S. Patent Appln No. 2003/0023161 (Govari). Claim 17 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka in view of Carson and Cosman as applied to claim 14 above, and further in view of U.S. Patent No. 6,144,875 (Schweikard). Claim 18 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka in view of Carson and Cosman as applied to claim 14 above, and further in view of U.S. Patent No. 6,206,566 (Schuetz). Applicants traverse the rejections. Applicants submit

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that claims 8, 12, 14-18, 21 and 22 are patentable at least because they depend ultimately from independent claim 1. Applicants request the withdrawal of the rejections.

Please charge any fee associated with the prosecution of this application to Deposit Account No. 10-0750.

Applicants submit that the application is presently in condition for allowance and request favorable reconsideration and early notice of allowance. If it would speed prosecution, the Examiner is encouraged to contact the undersigned attorney by telephone.

Respectfully submitted,

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